Table 1

Comparison of GDP-PI – 6.5% Annual Price Cap Rate Adjustment with Average Revenue per Special Access VGE per ARMIS 43-03

Year	GDP-PI	ΔGDP-PI – 6.5%	Price cap index	Avg. revenue per VGE index
1996	2.0	-4.5	100.0	100.0
1997	1.9	-4.6	95.5	104.4
1998	1.5	-5.0	91.1	101.7
1999	1.1	-.54	86.6	91.4
2000	1.6	-4.9	81.9	90.5
2001	2.2	-4.3	77.9	95.9
2002	2.4	-4.1	74.5	86.3
2003	1.4	-5.1	71.5	84.6

As this calculation demonstrates, and assuming that the average revenue per VGE is representative of the "price" of special access as Dr. Taylor contends, under price caps the 2003 special access price index would have been 71.4 instead of the 84.5 calculated using Dr. Taylor's formulation. On this basis, special access average revenues *as implemented by the RBOCs using pricing flexibility and other pre-pricing flexibility adjustments* were roughly 18.35% *higher* than they would have been through a straight application of the Commission's price cap formula over the full seven-year period.

37. This outcome is hardly surprising. Even in the "pricing flexibility" areas, the actual extent of facilities-based competition for RBOC special access services is clearly not sufficient to constrain RBOC pricing. Indeed, in the *TRO*, the Commission recognized that mere satisfaction of the pricing flexibility trigger was not indicative of the sufficiency of competition in any MSA

> ... The record indicates that incumbent LECs have qualified for special access pricing flexibility in numerous MSAs throughout their regions, almost exclusively by meeting the triggers based on special access revenues. Because the revenue trigger requires only a single collocated competitor and the purchase of substantial amounts of special access in a concentrated area, this test provides little indication that competitors have self-deployed alternative facilities, or are not impaired outside of a few highly concentrated wire centers. Additionally, the pricing flexibility trigger based on alternative transport-based collocation requires no consideration of the ubiquity of the competitive transport facilities throughout an MSA. The measure does not indicate that the competitive fiber facilities connect to collocations in any other incumbent LEC central offices. The measure may only indicate that numerous carriers have provisioned fiber from their switch to a single collocation rather than indicating that transport has been provisioned to transport traffic between incumbent LEC central offices. Therefore, we find that Commission approval for special access pricing flexibility, finding that competing carriers have made "irreversible sunk investments," is not sufficiently tailored to identify where requesting carriers are not impaired without unbundled transport.[58]

38. When examined on an apples-to-apples basis over the period since the onset of pricing flexibility, special access prices have either increased or remained the same in nominal dollar terms while corresponding prices in areas not eligible for pricing flexibility have decreased. This undeniable *fact* is obscured by the unrepresentative "average revenue" index that Dr. Taylor has creatively elected to develop.

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58. *TRO*, at para. 397, footnotes omitted.

39. There is, in reality, no inconsistency between an *apparent* decrease in "average revenue per voice-grade equivalent (DS0) channel" and the persistent *increases* in price for the specific DSn-level special access services at issue here. There are at least three explanations for this result, none of which have been explored in any detail by Dr. Taylor:

(1) Disproportionate increase in demand for very high capacity OCn services whose price, when expressed on a per voice-grade equivalent ("VGE") basis, is substantially lower than the per-VGE price for services purchased as DS-1s or DS-3s;

(2) Increased use of optional pricing plan ("OPP") contracts that impose substantial volume and term commitments, coupled with large financial penalties, in exchange for "discounts" off the prevailing month-to-month pricing; and

(3) Inclusion of special access rate decreases resulting from annual price cap rate adjustments for services not subject to pricing flexibility in the "average revenue" figure.

As a result, the *apparent* decrease in *average* revenue per voice grade equivalent channel as reported by Dr. Taylor is in no realistic sense indicative of any "price decreases," and to claim as much is misleading and dishonest. Dr. Taylor's subsequent updates to his analyses have done nothing to move away from the "average revenue" basis. The Commission should ignore and afford no weight or credence whatsoever to Dr. Taylor's analysis.

Use of "average revenue per voice grade equivalent" rather than actual prices.

40. Dr. Taylor's comparison is cast in terms of "average revenue per voice grade equivalent" ("VGE") special access service. However, that is distinctly *not* how special access services are priced or sold. Special access services are denominated in terms of multiple pricing dimensions and other service attributes including, among other things, bandwidth (capacity) and distance. Bandwidths range from single voice-grade analog or digital (DS0) channels up through an OC-192 "pipe," which is equivalent to 129,024 VGE channels. Because prices vary less than proportionately with total bandwidth, when expressed on a VGE basis, the price per VGE channel decreases as the total capacity of the "pipe" increases. For example, an OC-12 facility, which is equivalent to 8,064 voice-grade (DS-0) channels or 336 DS-1s, is typically priced at only about 40 times the price of a single DS-1. Thus, when purchased as part of an OC-12, the price of a single VGE channel is only 12% of the per-channel price when purchased as part of a DS-1. In recent years, and when viewed in terms of the entire special access universe, the demand for very high capacity OCn services has been growing at a much faster rate than the demand for individual DS-1s or DS-3s, driven in large part by the voracious capacity demands of the Internet and other high volume data transmission applications. Thus, even if prices of specific services had remained unchanged, the average "revenue per VGE channel" would fall, because successively larger percentages of voice-grade equivalent channels are being purchased as part of very high capacity OCn services.[59]

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59. For example, suppose that an ILEC provides special access only as DS0s and DS-1s. In *(continued...)*

41. Along a similar line, it is also possible that the average distance of special access services may also have decreased,[60] in which case (and, once again, holding all else equal), the price per VGE would decrease simply because average distance per circuit has gone down, rather than due to any change in any specific pricing element. Dr. Taylor's analysis entirely ignores this possibility.

Increased use of "optional pricing plan" volume and term contracts.

42. Since obtaining special access pricing flexibility in most MSAs, the RBOCs have been increasing month-to-month prices while at the same time have offered discounts off those prices in exchange for certain volume and term commitments on the part of the special access customer (the IXC or CLEC) along with the acceptance of a potential obligation on the part of the customer to incur a financial penalty if these commitments are not fully satisfied. As AT&T declarants Benway *et al* testified in their October 4, 2004 submission in WC 04-313, the specific terms of such OPP and similar contracts are often extremely onerous, and among other things require the customer to forgo alternatives, in the minority of routes where such alternatives may

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59. (...continued)
Period 1, the *price* of a DS0 was $50 and the *price* of a DS-1 was $600 (i.e., $25 per VGE), and that 20% of all VGEs are provided as DS0s, for an average revenue per VGE of $30. In Period 2, suppose that the price of a DS0 increases to $52 and the price of a DS-1 increases to $624, but that now only 10% of all VGEs are provided as DS0s, resulting in an average revenue per VGE of $28.60. Thus, despite *rising prices*, the shift in demand to higher capacity services results in a *lower* average revenue per VGE.

60. Comments of MCI, Inc., WC Docket No. 04-313, October 4, 2004, at 170-171.

exist, in order to fulfill the committed volume. This increased use of so-called OPPs with fixed volume and term commitments in exchange for "discounts" off the RBOC month-to-month rates invalidates any attempt simplistically to track "average revenue" over time, because such a comparison obscures major elements of the "price" that the RBOCs are actually demanding.[61]

43. The "price" of a good or service consists of the total opportunity cost confronting the purchaser, and as such consists of all elements of "value" given in exchange for it, which would include both nominal cash payments as well as any non-cash restrictions, obligations, commitments and risks that the purchaser is required to accept. Comparing a month-to-month price of $100 with an OPP price of $80 that requires a minimum purchase of $10-million over a five-year period ascribes zero value to that commitment, to the potential for a financial penalty if the commitment is ultimately not satisfied, or to the opportunity losses confronted by the customer where, in order to satisfy the volume commitment, potentially lower-priced alternatives may have to be forgone.

Inclusion of annual price cap rate decreases for non-pricing flexibility services.

61. Declaration of Alan G. Benway, Robert G. Holleron, Jeffrey King, Michael E. Lesher, Michael C. Mullan, and Maureen Swift on behalf of AT&T Corp., WC Docket No. 04-313, October 4, 2004 ("*Benway et al Declaration*"), at paras. 41-42, 54-61.

44. In fact, taking into account required price cap reductions, the results of Dr. Taylor's WC 04-313 figures showed that rates subject to pricing flexibility had actually *increased*. While Dr. Taylor's calculation of average revenue per VGE, as reflected on his Figures 1 and 2 of his WC 04-313 filing, show pricing flexibility as commencing in mid-2000, many RBOC MSAs had not been granted pricing flexibility until 2002, and even today some MSAs – and non-MSA areas – are still subject to price caps. Consequently, a portion of the drop in average revenue per VGE that Dr. Taylor sought to ascribe to the post-pricing flexibility period were actually the result of *mandatory* annual price cap rate reductions.[62] For these areas, prices have decreased by approximately 19.53% between mid-2000 and those in effect as of this date.[63]

45. According to the ARMIS 43-03 reports upon which Dr. Taylor based his average revenue per special access voice grade equivalent channel, average revenue per VGE had an index value of 84.5 as of the end of 2003 (1996 = 100), implying a *total decrease* in nominal dollars of 15.5% over the full 7-year period. As I noted earlier, had the GDP-PI – 6.5% annual price cap rate adjustment been operative for all special access services over the entire period, the

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62. For example, SBC Declarant Parley C. Casto, at para. 16, footnote 2, admits that "[t]o be sure, some of SBC's Phase II special access rates in pricing flexibility areas are slightly higher than in those non-pricing flexibility areas. This results from rate reductions in non-flexible rate areas due to the annual price cap reductions dictated by the Federal rules which do not apply to pricing flexibility areas. ..."

63. The Price Cap index as show in Table 1 is 86.6 in 1999, 81.9 in 2000, and 67.8 in 2004. The mid-2000 index value, as an average is (86.6+81.9)/2=84.25. The percentage change is calculated by subtracting the 2004 value from the mid-2000 value, and dividing by the mid-2000 value. (84.25-67.8)/84.25=19.53

index value for 2003 would have been 71.5, indicating a cumulative 28.5% drop in average revenue per VGE over the 1996-2003 period, all else being equal.

Shifting utilization between lower and higher capacity facilities accounts for the remaining decrease in VGE special access revenue.

46. Shifting utilization of services with different capacity levels or different mixes of channel terminations and mileage is also responsible for some of the changes in "average revenue" results. Importantly, there is no reason why this revenue surrogate for *price* was needed: If, as Verizon claims, its special access prices have been dropping since the onset of pricing flexibility, it should have been able to show that via a direct like-for-like comparison of actual tariff prices at various points in time, rather than by means of the indirect – and inapposite – device of an "average revenue" surrogate. Of course, that type of comparison would *disprove* Verizon's claim, so it is hardly surprising that Dr. Taylor needed to devise this "smoke and mirrors" approach to "proving" what is in fact not true.

47. If, over time, proportionately more VGE channels are provided in very high capacity OCn "pipes," all else being equal the "average revenue per VGE" will decrease – even if the nominal "prices" of like-for-like services themselves are increasing.

Dr. Taylor's removal of DSL revenues from special access category revenues as reported in ARMIS is flawed and is based upon undocumented and unreproducible data.

48. In describing the newest iteration of his series of flawed average revenue calculations, Dr. Taylor attempts to correct for a problem that he perceives stems from the fact that ARMIS data includes DSL revenue but not DSL lines, thus, he believes overstating the growth in revenue per line during periods when DSL revenue was growing rapidly."[64] Dr. Taylor testifies that he obtained DSL revenue from Verizon for 2002-2004 [and] "then subtracted these DSL revenues from ARMIS special access revenue" and divided the difference by VGEs to come up with what he apparently believes is a "better" VGE- based analysis.[65] The results of this new analysis, compared to a price caps *trend line* are shown on Figure 1 of Dr. Taylor's declaration in this proceeding. Like Dr. Taylor's prior analyses, the new Figure 1 is flawed.

49. First, without the actual DSL revenue or a citation to its source, there is simply no way to reproduce or verify any of Dr. Taylor's "DSL" calculations. Moreover, not all of Verizon's DSL-related revenue is included in the interstate special access category. Some DSL services are provided as "line sharing" UNEs, and some are provided to end users as part of Internet service bundles. As such, if Dr. Taylor removed *all* Verizon DSL-related revenue from the interstate special access category revenues reported in ARMIS, he may well have "removed" revenues that were not even there to begin with. The results being claimed by Dr. Taylor – larger percentage

64. Taylor Reply Declaration, at para. 7.

65. *Taylor WC 05-25 (Verizon)*, at para 18.

reductions in (non-DSL) special access revenues than for the category as a whole – could well be explained by this error. The embellishment of Dr. Taylor's analysis to exclude what purports to be DSL revenues cannot be reproduced and, in any event, has been applied to baseline figures that are themselves demonstrably wrong. Accordingly, the DSL adjustments cannot reasonably be afforded weight or relevance.

50. *First*, there is no logical relationship between average revenues per special access VGE and special access price changes. In fact, average revenues per special access VGE can decline even as special access prices increase. There are several reasons why this might occur. The Bells sell special access upon different terms and conditions. Customers that agree to the extra economic burdens entailed by the lengthy term and volume commitments in Bell OPPs can purchase special access at prices lower than the prices the Bells charge for month-to-month rates Thus, if the Bells increase month-to-month rates (as they have) that will cause more customers to knuckle under to the conditions in the Bell OPPs (as they have). This mere relative shift in demand will cause a decrease in average revenues per VGE – but there indisputably is *no decrease* in price.[66]

51. *Second*, the ARMIS data upon which the analysis relies does not segregate revenues earned in pricing flexibility and non-pricing flexibility MSAs. That is critical because the Bells

66. Indeed, an analysis that properly accounted for the economic "cost" of the assumed volume and term commitments could well show an economic rate increase.

have been forced to lower prices in areas where they remain subject to price caps. These required reductions may cause a drop in overall average revenues per VGE, but in no way show that the RBOCs have lowered prices in areas where they have pricing flexibility.

52. *Third*, average revenue per VGE (or DS-1, or DS-3) depends directly upon the *length* of the circuits that the RBOCs sell. Special access has fixed charges and mileage sensitive charges. The longer the special access circuit, all else equal, the higher the charge for the circuit. Thus, if there is a relative shift over time in special access demand from longer to shorter circuits, that would manifest itself as a reduction in average revenues per VGE (or DS-1 or DS-3) even where there had been no decrease in price.

53. *Fourth*, the average revenue per VGE metric treats mere shifts in the mix of special access purchased as a price decrease. The RBOCs earn higher revenues per VGE on lower capacity special access services than they do on higher capacity services For example, the revenue per VGE of an OC 12 service is much lower than the revenue per VGE of DS-1 service. If there is greater growth in purchases of higher capacity services than of lower capacity services, this would cause a decline in average revenues per VGE even where there had been no price decrease (or indeed, even where there have been price increases).

BellSouth's analysis of "declines" in average special access prices is misleading and flawed.

54. Taken at face value, BellSouth's new analysis does not offer much in the way of useful information. Rather than continuing to base its case on an overall average, BellSouth's present analysis calculates DS-1 and DS-3 specific revenues separately. This "analysis" of DS-1and DS-3 specific revenues suffers from many of the same problems as all of the other RBOC analyses I have discussed so far. No explanation is provided as to where they obtained DS-1 ad DS-3 revenues and line counts (such data are not reported in ARMIS) or even what the aggregate numbers were so that one could at least double check the math. Appendix 3 contains and analysis of the "average" DS-1 revenue per DS-1 circuit and the "average" DS-3 revenue per DS-3 circuit – an analysis fraught with all the same problems as the other "average revenue per unit" analyses. Similarly flawed Appendix 5 includes an analysis of the "average revenue per DS-1 equivalent." Among the most fundamental of the problems with these analyses are the following: (i) they inappropriately treat mere shifts in relative demand for month-to-month versus more burdensome term services as reflecting price changes, (ii) they inappropriately combine price changes for price capped special access services with pricing flexibility services and interpret price decreases in special access services subject to price caps as price decreases for services for which the BellSouth has pricing flexibility; and (iii) they inappropriately treat mere relative shifts in demand for circuit-mileage as price changes.

55. Additionally, the data is not ARMIS-based and cannot be traced to anything. The data upon which the analysis is based in inexplicably labeled as "excluding wireless" and represents

only about 50% of BellSouth's total ARMIS-reported special access revenues. No reason for removing "wireless" local channels, circuits, or revenues is proffered, nor is there any certainty that the "average revenues" provided as a result of this analysis track in any way to the average revenues for the totality of DS-1s and DS-3s. No weight can be given to this smoke and mirrors.

VERIFICATION

The foregoing statements are true and correct to the best of my knowledge, information and belief.

LEE L. SELWYN

Attachment 1

Statement of Qualifications

Dr. Lee L. Selwyn

Statement of Qualifications

LEE L. SELWYN

Dr. Lee L. Selwyn has been actively involved in the telecommunications field for more than thirty-five years, and is an internationally recognized authority on telecommunications regulation, economics and public policy. Dr. Selwyn founded the firm of Economics and Technology, Inc. in 1972, and has served as its President since that date. He received his Ph.D. degree from the Alfred P. Sloan School of Management at the Massachusetts Institute of Technology. He also holds a Master of Science degree in Industrial Management from MIT and a Bachelor of Arts degree with honors in Economics from Queens College of the City University of New York.

Dr. Selwyn has testified as an expert on rate design, service cost analysis, form of regulation, and other telecommunications policy issues in telecommunications regulatory proceedings before some forty state commissions, the Federal Communications Commission and the Canadian Radio-television and Telecommunications Commission, among others. He has appeared as a witness on behalf of commercial organizations, non-profit institutions, as well as local, state and federal government authorities responsible for telecommunications regulation and consumer advocacy.

He has served or is now serving as a consultant to numerous state utilities commissions including those in Arizona, Minnesota, Kansas, Kentucky, the District of Columbia, Connecticut, California, Delaware, Maine, Massachusetts, New Hampshire, Vermont, New Mexico, Wisconsin and Washington State, the Office of Telecommunications Policy (Executive Office of the President), the National Telecommunications and Information Administration, the Federal Communications Commission, the Canadian Radio-television and Telecommunications Commission, the United Kingdom Office of Telecommunications, and the Secretaria de Comunicaciones y Transportes of the Republic of Mexico. He has also served as an advisor on telecommunications regulatory matters to the International Communications Association and the Ad Hoc Telecommunications Users Committee, as well as to a number of major corporate telecommunications users, information services providers, paging and cellular carriers, and specialized access services carriers.

Dr. Selwyn has presented testimony as an invited witness before the U.S. House of Representatives Subcommittee on Telecommunications, Consumer Protection and Finance and before the U.S. Senate Judiciary Committee, on subjects dealing with restructuring and deregulation of portions of the telecommunications industry.

In 1970, he was awarded a Post-Doctoral Research Grant in Public Utility Economics under a program sponsored by the American Telephone and Telegraph Company, to conduct research on the economic effects of telephone rate structures upon the computer time sharing industry. This work was conducted at Harvard University's Program on Technology and Society, where he was appointed as a Research Associate. Dr. Selwyn was also a member of the faculty at the College of Business Administration at Boston University from 1968 until 1973, where he taught courses in economics, finance and management information systems.

Dr. Selwyn has been an invited speaker at numerous seminars and conferences on telecommunications regulation and policy, including meetings and workshops sponsored by the National Telecommunications and Information Administration, the National Association of Regulatory Utility Commissioners, the U.S. General Services Administration, the Institute of Public Utilities at Michigan State University, the National Regulatory Research Institute at Ohio State University, the Harvard University Program on Information Resources Policy, the Columbia University Institute for Tele-Information, the International Communications Association, the Tele-Communications Association, the Western Conference of Public Service Commissioners, at the New England, Mid-America, Southern and Western regional PUC/PSC conferences, as well as at numerous conferences and workshops sponsored by individual regulatory agencies.

Dr. Selwyn has presented testimony in cases addressing each of the five previous RBOC mergers. He appeared on behalf of the California PUC's Office of Ratepayer Advocates in both the SBC/Pacific Telesis and the Bell Atlantic/GTE merger dockets. That work included, among other things, analyses of the effect of the mergers on competition and on the surviving firms' market power, ratepayer impacts, including the applicants' recovery of merger-related costs and the flow-through of merger benefits to California ratepayers, and the conformance of the mergers with applicable California Public Utility Code requirements. Dr. Selwyn was engaged in 1996 by the State of Maine Office of Public Advocate with respect to the NYNEX/Bell Atlantic merger, in 1998 by the State of Connecticut Office of Consumer Counsel to address the merger of the Southern New England Telephone Company ("SNET") into SBC, and in 1998-99 by the Illinois Attorney General to present testimony in the Illinois Commerce Commission's proceeding regarding the merger of SBC and Ameritech.

Dr. Selwyn has also participated in a number of matters addressing non-merger change of control and other affiliate transaction issues. He was engaged by the California PUC Office of Ratepayer Advocates in 1992-1993 with respect to the Pacific Telesis "spin-off" of its cellular and other wireless subsidiaries. In 2003, Dr. Selwyn testified for the Staff of the Washington State Utilities and Transportation Commission addressing financial and public interest issues arising from Qwest's sale of its directory publishing business ("DEX") to a group of private investors. Dr. Selwyn has also been involved in numerous other cases addressing intercarrier compensation, interconnection, access charges, imputation, competition, and market power issues, including a number of Section 271/272 proceedings, and the FCC's *Triennial Review* and *Triennial Review Remand* proceedings.

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EXHIBIT 8

RBOC Volume Commitment Plan Examples

Verizon Commitment Discount Plan ("CDP")

Service:	Channel Terminations. Special/Switched DS1, DS3, DS0, Optical Entrance Facility
Discount:	Can move existing circuits into lower-priced tariffed Term Payment Plans.
Commitment Required:	Combined Special/Switched DS1 – 90% of in-service combined special/switched DS1 circuits throughout territory Combined Special/Switched DS3 – 90% of in-service combined special/switched circuits throughout territory
Term:	2-7 years
Geographic Area:	Discounted services available throughout territory
Other Conditions:	(a) Termination liability and penalties for failure to meet volume requirements

SBC Managed Volume Plan ("MVP")

Service:	DS1, DS3, Entrance Facilities, Switched Transport, Voice Grade
Discount:	(a) Year 1 – 9%; Year 2 – 11%; Year 3 – 12%; Year 4 – 13%; Year 5 – 14% off already-discounted rates (b) No NRCs on initial installation for 3 year or higher contracts
Commitment Required:	(a) Minimum Annual Revenue Commitment (MARC) – 4 times the recurring billing amount for past 3 months. MARC cannot be decreased. (b) Minimum $10 million in annual billing.
Term:	5 Years
Geographic Area:	Generally available throughout SBC territory
Other Conditions:	(a) Termination liability and penalties for failure to meet volume requirements (b) Ratio of access services bought to other wholesale (e.g., UNE) services bought must be higher than 95%

SWBT Contract Tariff # 48 (Same as PacBell #56, Ameritech #64 and SNET #16)

Service:	Special Access DS0, DS1/DS3, OC3, OC Dedicated Ring, Gigabit Ethernet and Multi-service Optical Network services
Discount:	5-12% discounts on SWBT price flex services; NRCs waived; SLAs
Commitment Required	(a) $26.5 million of contributory services from all regions or 4 times billing revenue for past 3 months, whichever is greater (b) Contributory Services include all Services (above) plus ATM, Frame Relay, InterLATA dedicated services, and others from throughout SBC
Term:	5 years
Geographic Area:	Price Flex areas of SWBT territory
Other conditions:	(a) Ratio of access services to other wholesale – e.g., UNEs) of 98% (b) Must subscribe to Ameritech #64, PacBell#56 and SNET#16. These contracts are virtually identical. (c) Cannot use in conjunction with MVP Plan.

BellSouth Premium Service Incentive Plan ("PSIP")

Service:	Special and switched DS1 and DS3 local and interoffice channels, DS0, WATS Access, SMARTRing, Managed Network, Wavelength
Discount:	(a) Credit of 6-10% for meeting revenue commitments. (b) Additional discounts of up to 50% off month-to-month rates and up to 19% off discounted rates depending on post-credit revenue level.
Commitment Required	(a) 90-95% of most recent 6 months of qualified revenue (which excludes NRCs) (b) Contributory Services include all Services (above) from throughout BellSouth
Term:	3 years
Geographic Area:	Generally available throughout BellSouth territory
Other conditions:	(a) Termination liability and penalties for failure to meet volume requirements